

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:23:24 ON 27 MAR 2006

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STRUCTURE FILE UPDATES: 26 MAR 2006 HIGHEST RN 878044-67-8

DICTIONARY FILE UPDATES: 26 MAR 2006 HIGHEST RN 878044-67-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

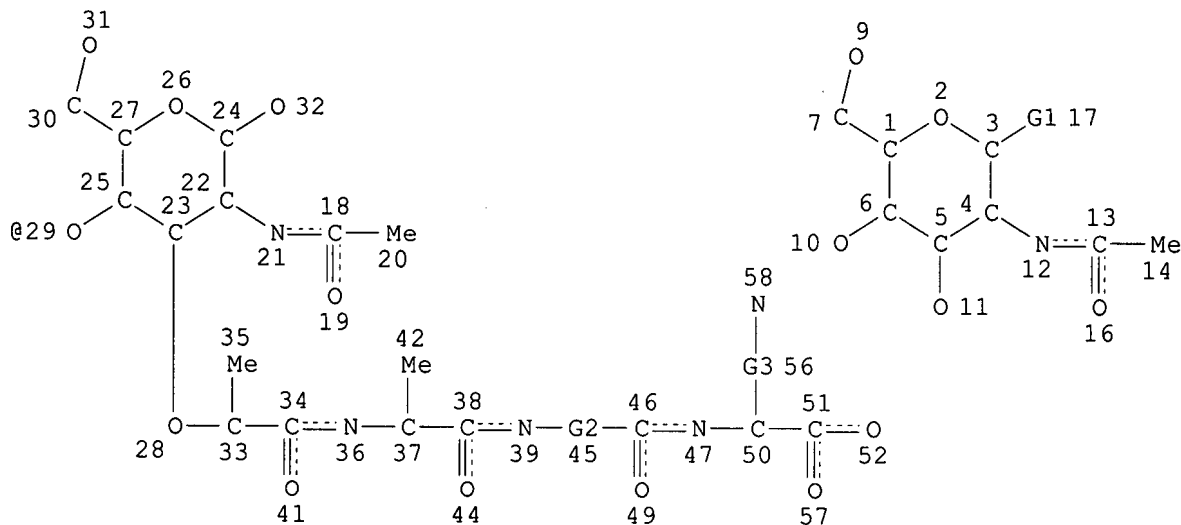
Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

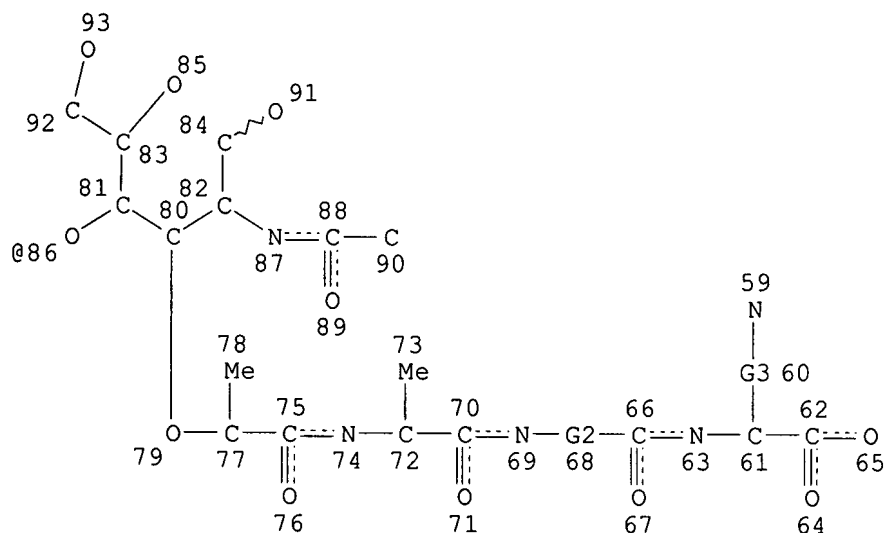
<http://www.cas.org/ONLINE/UG/regprops.html>

=> d sta que 115

L12 STR



Page 1-A



Page 3-A

VAR G1=29/86

REP G2=(3-3) CH2

REP G3=(4-4) CH2

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 85

STEREO ATTRIBUTES: NONE

L15 7 SEA FILE=REGISTRY SSS FUL L12

100.0% PROCESSED 1172 ITERATIONS

7 ANSWERS

SEARCH TIME: 00.00.01

=&gt; d ide can tot l15

L15 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2006 ACS on STN

RN 850164-33-9 REGISTRY

ED Entered STN: 10 May 2005

CN L-Lysine, N-[N-acetyl-4-O-[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-β-muramoyl]-L-alanyl-4-aminobutanoyl- (9CI) (CA INDEX NAME)

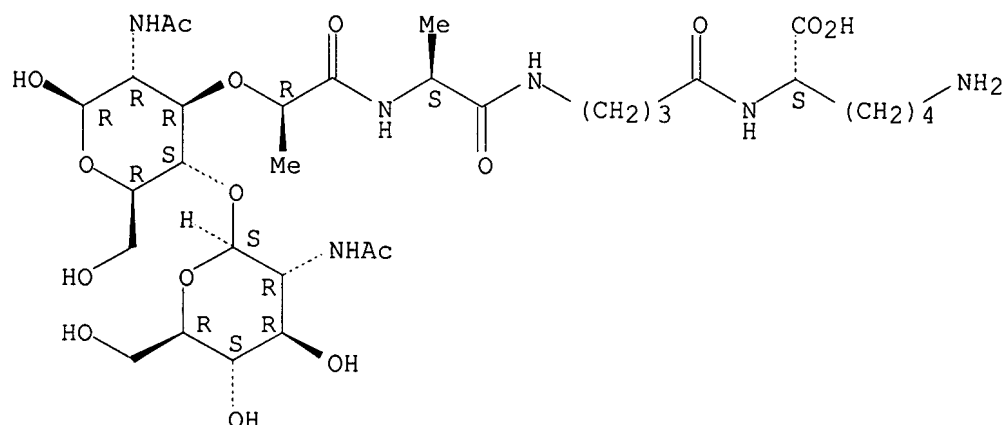
FS STEREOSEARCH

MF C32 H56 N6 O16

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

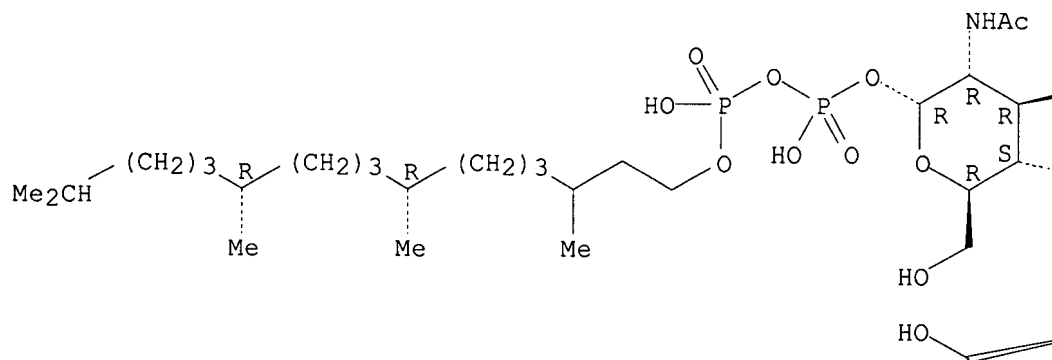
1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 142:390948

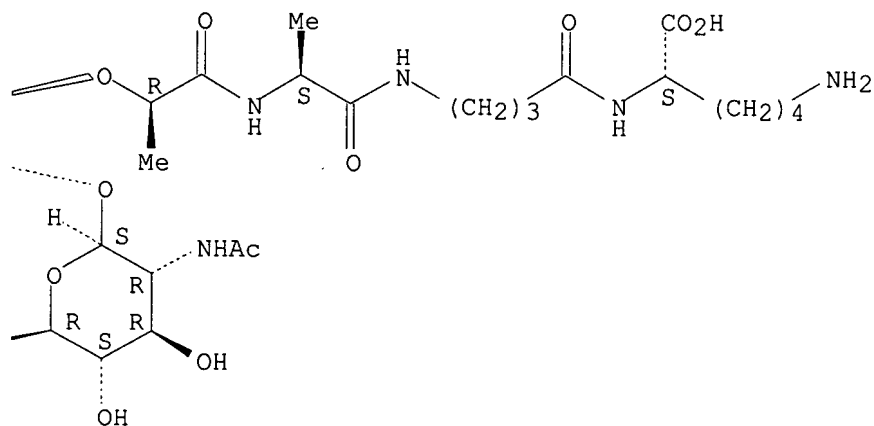
L15 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 777941-04-5 REGISTRY  
ED Entered STN: 10 Nov 2004  
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FS STEREOSEARCH  
MF (C52 H98 N6 O22 P2)x  
CI PMS  
PCT Polyamide, Polyamide formed, Polyester, Polyester formed, Polyether, Polyether formed  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL  
  
CM 1  
  
CRN 599173-88-3  
CMF C52 H98 N6 O22 P2

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

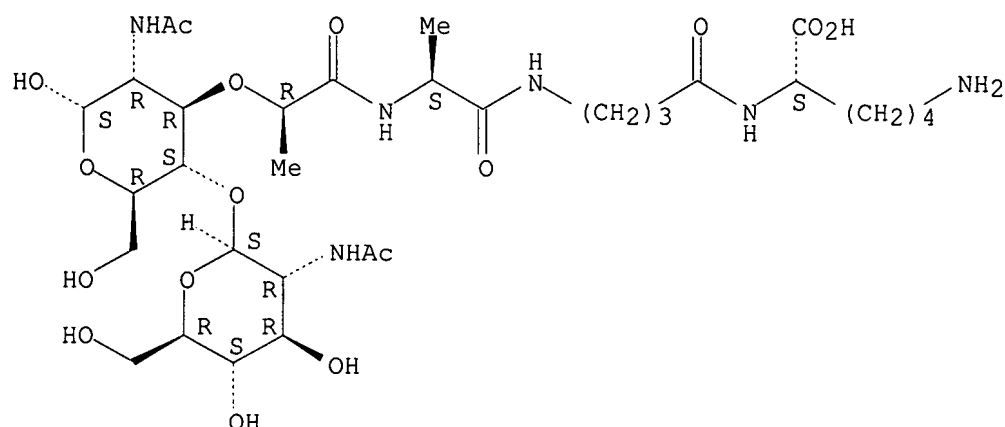


1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:360675

L15 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 599173-89-4 REGISTRY  
 ED Entered STN: 06 Oct 2003  
 CN L-Lysine, N-[N-acetyl-4-O-[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-α-muramoyl]-L-alanyl-4-aminobutanoyl- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C32 H56 N6 O16  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



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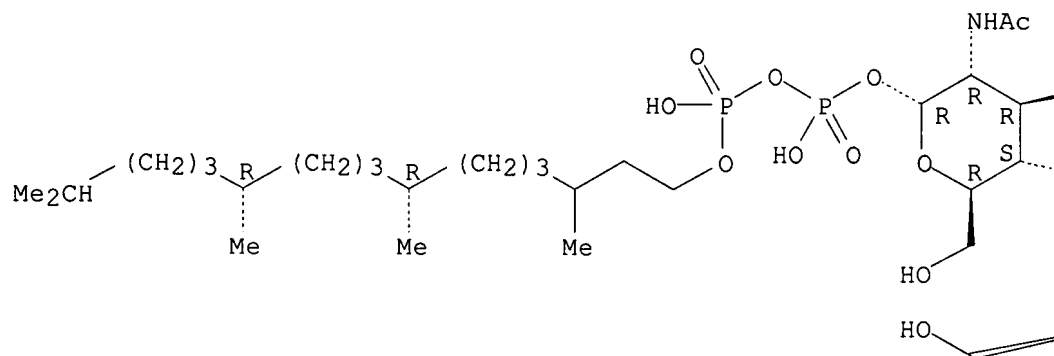
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REFERENCE 1: 139:244708

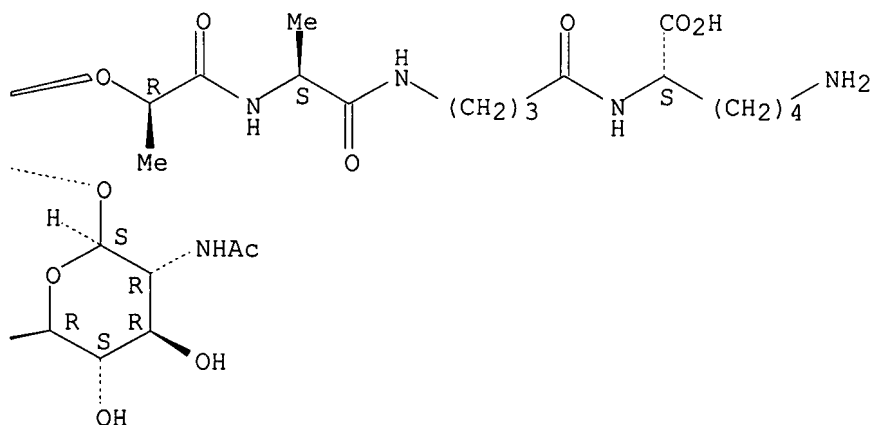
L15 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 599173-88-3 REGISTRY  
ED Entered STN: 06 Oct 2003  
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FS STEREOSEARCH  
MF C52 H98 N6 O22 P2  
CI COM  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 142:390948

REFERENCE 2: 139:244708

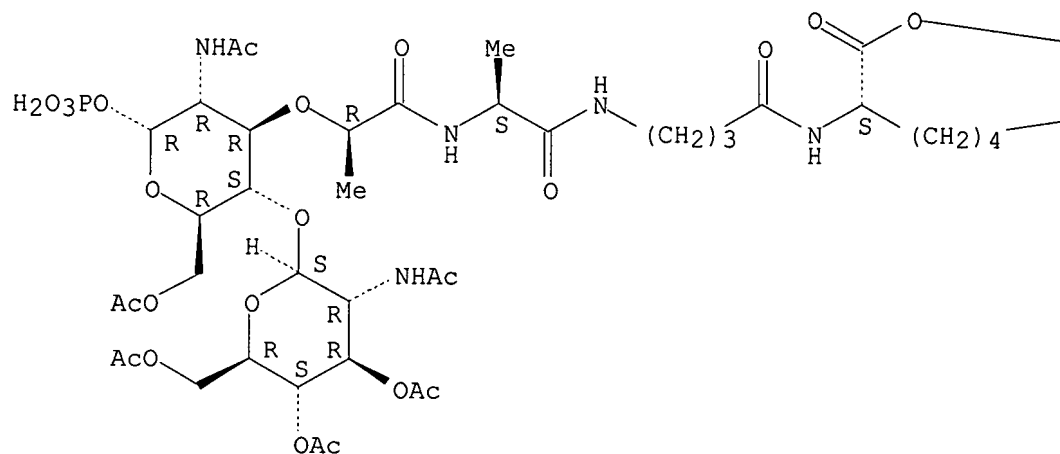
L15 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 599173-87-2 REGISTRY  
ED Entered STN: 06 Oct 2003  
CN L-Lysine, N-[N-acetyl-6-O-acetyl-1-O-phosphono-4-O-[3,4,6-tri-O-acetyl-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-α-muramoyl]-L-alanyl-4-aminobutanoyl-N6-(trifluoroacetyl)-, 3-hexyl ester, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C48 H76 F3 N6 O24 P . C5 H5 N  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

CM 1

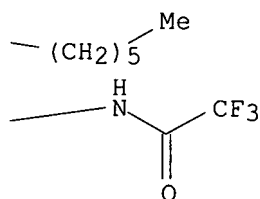
CRN 599173-86-1  
CMF C48 H76 F3 N6 O24 P

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CM 2

CRN 110-86-1

CMF C5 H5 N



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:244708

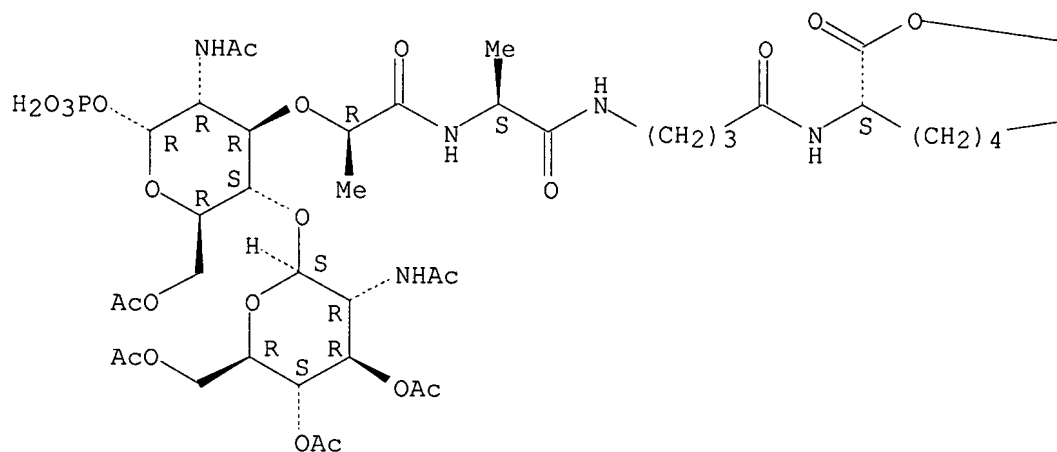
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 RN 599173-86-1 REGISTRY  
 ED Entered STN: 06 Oct 2003  
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jan delaval - 27 march 2006

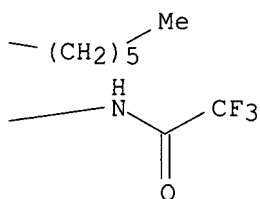
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 CI COM  
 SR CA

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



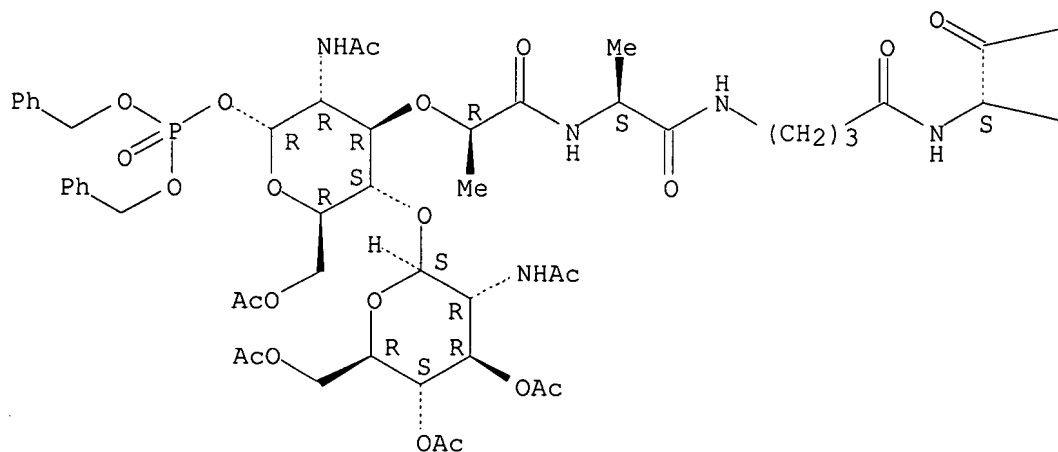
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L15 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 599173-85-0 REGISTRY  
 ED Entered STN: 06 Oct 2003  
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 FS STEREOSEARCH  
 MF C62 H88 F3 N6 O24 P  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

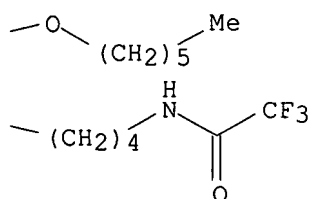
Absolute stereochemistry.



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PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:244708

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SET COST OFF

FILE 'HCAPLUS' ENTERED AT 13:06:16 ON 27 MAR 2006

L1 1 S US20050119164/PN OR (US2004-506312# OR WO2003-US05575 OR US20  
E TAYLOR K/AU  
L2 224 S E3,E4  
E TAYLOR KATH/AU  
L3 14 S E10-E12  
L4 2 S E33  
E BLASZCZAK/AU  
L5 61 S E19-E22  
E BLACKBURN N/AU  
L6 14 S E3,E10,E12,E13

jan delaval - 27 march 2006

SEL RN L1

FILE 'REGISTRY' ENTERED AT 13:08:34 ON 27 MAR 2006

L7 17 S E1-E17  
L8 7 S L7 AND OC5/ES  
L9 4 S L8 NOT S/ELS  
L10 STR  
L11 7 S L10  
L12 STR L10  
L13 1 S L12  
L14 6 S L11 NOT L13  
L15 7 S L12 FUL  
SAV L15 GANGLE506/A  
L16 3 S L15 NOT L9  
L17 7 S L9,L15

FILE 'HCAOLD' ENTERED AT 13:22:30 ON 27 MAR 2006

L18 0 S L17

FILE 'HCAPLUS' ENTERED AT 13:22:33 ON 27 MAR 2006

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L20 2 S L19 AND L1-L6  
L21 2 S L19 AND (ELI? OR LILLY?)/PA,CS  
L22 3 S L19-L21

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L23 2 S L17

FILE 'REGISTRY' ENTERED AT 13:23:24 ON 27 MAR 2006

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FILE 'USPAT2' ENTERED AT 13:23:41 ON 27 MAR 2006

CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=&gt; d 123 bib abs hitstr tot

L23 ANSWER 1 OF 2 USPATFULL on STN

AN 2005:138514 USPATFULL

TI Immunomodulatory polymeric antigens for treating inflammatory pathologies

IN Taylor, Kathleen Ann, Fishers, IN, UNITED STATES

Blaszczak, Larry Chris, Indianapolis, IN, UNITED STATES

Blackburn, Neil Thomas, Indianapolis, IN, UNITED STATES

PI US 2005119164 A1 20050602

AI US 2003-506312 A1 20030307 (10)

WO 2003-US5575 20030307

PRAI US 2003-363065P 20020308 (60)

US 2003-365211P 20020315 (60)

DT Utility

FS APPLICATION

LREP ELI LILLY AND COMPANY, PATENT DIVISION, P.O. BOX 6288, INDIANAPOLIS, IN,  
46206-6288, US

CLMN Number of Claims: 33

ECL Exemplary Claim: 1

DRWN 8 Drawing Page(s)

LN.CNT 2832

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Provided are natural and synthetic immunomodulatory polymeric antigens

*Applicants*

(SPAs), compositions containing SPAs, and methods of using these natural and synthetic SPAs and compositions to prevent or treat inflammatory pathologies.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 599173-85-0P 599173-87-2P 599173-88-3P

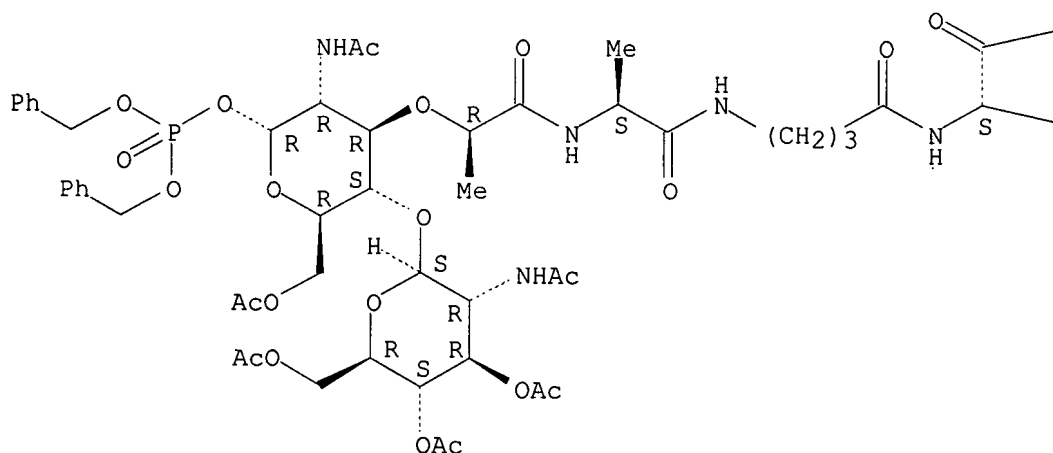
(immunomodulatory polymeric antigens for treating inflammatory diseases)

RN 599173-85-0 USPATFULL

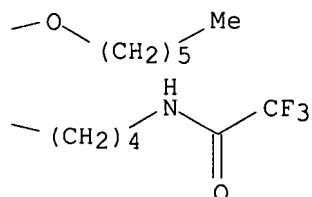
CN L-Lysine, N-[N-acetyl-6-O-acetyl-1-O-[bis(phenylmethoxy)phosphinyl]-4-O-[3,4,6-tri-O-acetyl-2-(acetilamino)-2-deoxy-β-D-glucopyranosyl]-α-muramoyl]-L-alanyl-4-aminobutanoyl-N6-(trifluoroacetyl)-, hexyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



RN 599173-87-2 USPATFULL

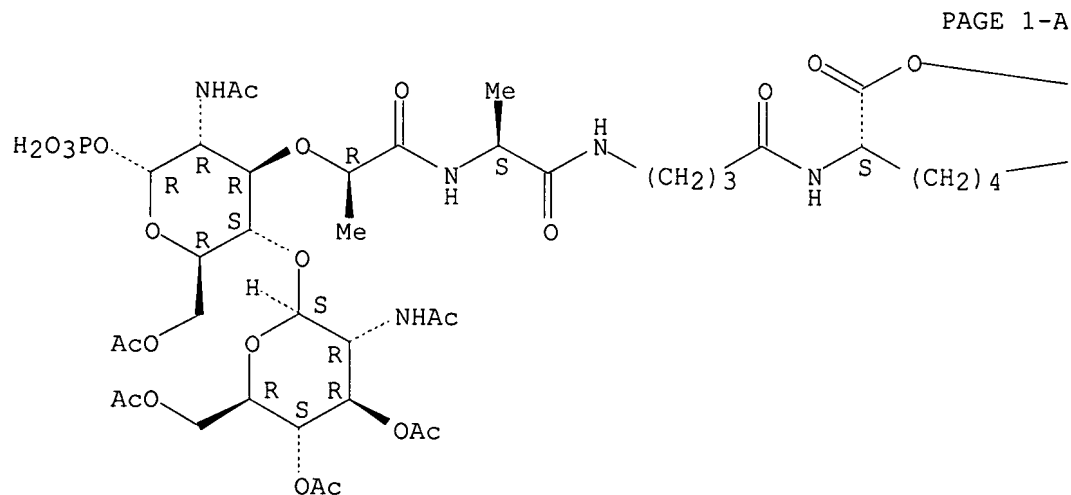
CN L-Lysine, N-[N-acetyl-6-O-acetyl-1-O-phosphono-4-O-[3,4,6-tri-O-acetyl-2-(acetilamino)-2-deoxy-β-D-glucopyranosyl]-α-muramoyl]-L-alanyl-4-aminobutanoyl-N6-(trifluoroacetyl)-, 3-hexyl ester, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)

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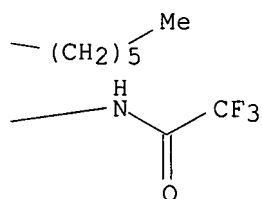
CRN 599173-86-1

CMF C48 H76 F3 N6 O24 P

Absolute stereochemistry.



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CM 2

CRN 110-86-1

CMF C5 H5 N

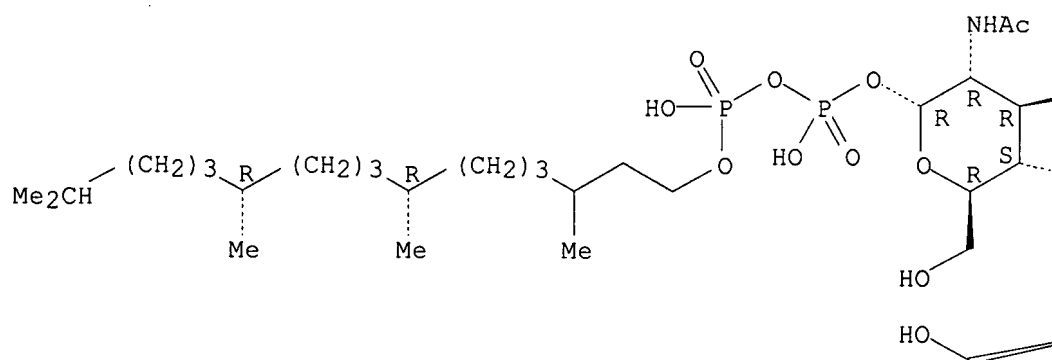


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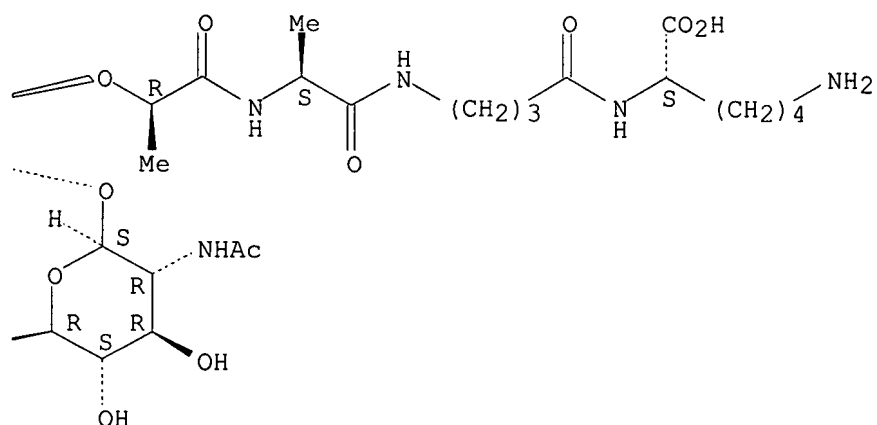
CN L-Lysine, N-[N-acetyl-4-O-[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-1-O-[(11R,15R)-1,3-dihydroxy-7,11,15,19-tetramethyl-1,3-dioxido-2,4-dioxo-1,3-diphosphaeicos-1-yl]-α-muramoyl]-L-alanyl-4-aminobutanoyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



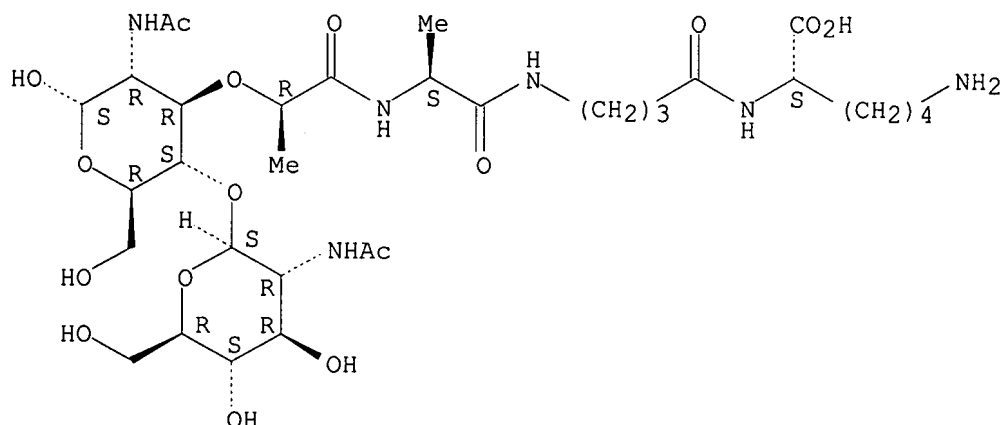
IT 599173-89-4P

(repeating unit; immunomodulatory polymeric antigens for treating inflammatory diseases)

RN 599173-89-4 USPTAFULL

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Absolute stereochemistry.



L23 ANSWER 2 OF 2 USPATFULL on STN

AN 2004:279860 USPATFULL

TI Zwitterionic immunomodulators for the treatment of asthma and allergy

IN Tzianabos, Arthur O., Reading, MA, UNITED STATES

Kasper, Dennis L., Charlestown, MA, UNITED STATES

PA The Brigham and Women's Hospital, Inc., Boston, MA (U.S. corporation)

PI US 2004219160 A1 20041104

AI US 2004-814620 A1 20040331 (10)

PRAI US 2003-459056P 20030331 (60)

DT Utility

FS APPLICATION

LREP Alan W. Steele, M.D., Ph.D., Wolf, Greenfield & Sacks, P.C., 600  
Atlantic Avenue, Boston, MA, 02210

CLMN Number of Claims: 39

ECL Exemplary Claim: 1

DRWN 9 Drawing Page(s)

LN.CNT 2600

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and products for treating and protecting against asthma and allergic conditions are provided. The methods and products are related to certain naturally occurring and synthetic zwitterionic polymers which are found to induce certain T regulatory (Treg) cells and to exert immunosuppressive effects in vitro and in vivo.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **777941-04-5**

(zwitterionic immunomodulators for treatment of asthma and allergy)

RN 777941-04-5 USPATFULL

CN L-Lysine, N-[N-acetyl-4-O-[2-(acetilamino)-2-deoxy-β-D-glucopyranosyl]-1-O-[(11R,15R)-1,3-dihydroxy-7,11,15,19-tetramethyl-1,3-dioxido-2,4-dioxo-1,3-diphosphaeicos-1-yl]-α-muramoyl]-L-alanyl-4-aminobutanoyl-, homopolymer (9CI) (CA INDEX NAME)

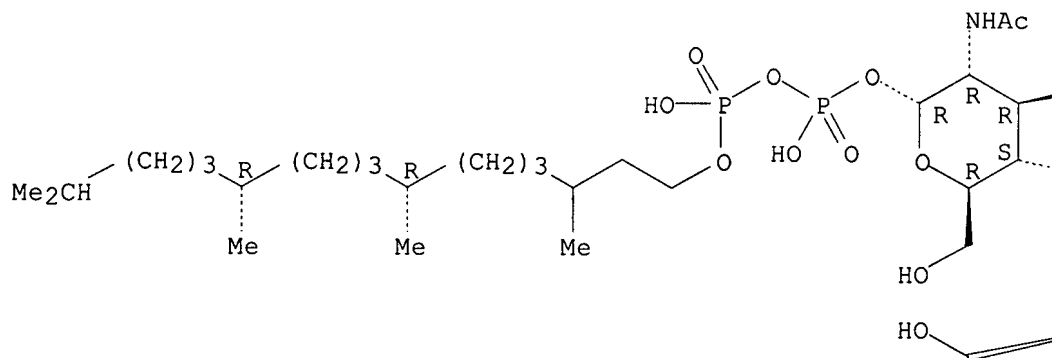
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CRN 599173-88-3

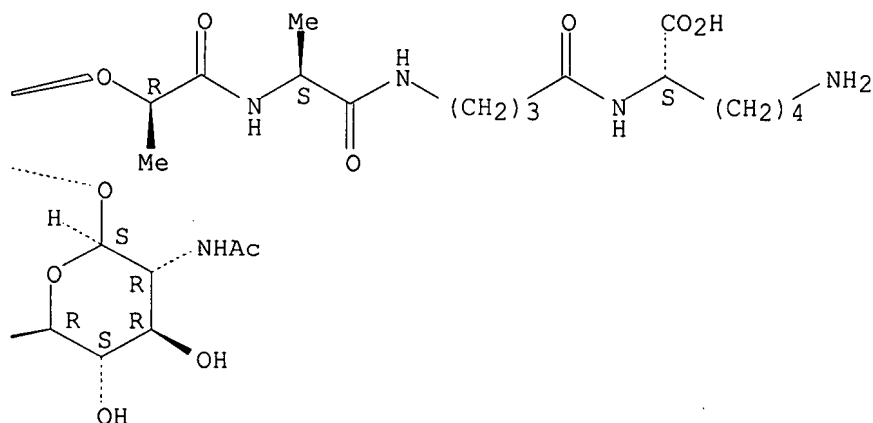
CMF C52 H98 N6 O22 P2

Absolute stereochemistry.

PAGE 1-A



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=&gt; fil hcaplus

FILE 'HCAPLUS' ENTERED AT 13:24:28 ON 27 MAR 2006

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FILE COVERS 1907 - 27 Mar 2006 VOL 144 ISS 14

FILE LAST UPDATED: 26 Mar 2006 (20060326/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr tot 122

L22 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:347060 HCAPLUS  
 DN 142:390948  
 ED Entered STN: 22 Apr 2005  
 TI Synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant  
 IN **Blaszczak, Larry Chris**; Cleveland, John Astor, Jr.; **Taylor, Kathleen Ann**; **Blackburn, Neil Thomas**; Kraft, Angelika Regina; Cohen, Charles Ellis  
 PA **Eli Lilly and Company, USA**  
 SO PCT Int. Appl., 108 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C08B0037-00  
 ICS A61K0039-39; C07K0009-00  
 CC 15-2 (Immunochemistry)  
 Section cross-reference(s): 1, 9, 63  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005035588	A1	20050421	WO 2004-US26737	20040915
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2003-503784P P 20030917

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005035588	ICM	C08B0037-00
	ICS	A61K0039-39; C07K0009-00
	IPCI	C08B0037-00 [ICM,7]; A61K0039-39 [ICS,7]; C07K0009-00 [ICS,7]
	IPCR	A61K0038-00 [N,A]; A61K0038-00 [N,C]; A61K0039-39 [I,A]; A61K0039-39 [I,C]; C07K0009-00 [I,A]; C07K0009-00 [I,C]
	ECLA	A61K039/39; C07K009/00D4; C08B037/00M3B

AB Provided are synthetic polysaccharide antigens (SPAs) with anti-inflammatory or inflammatory immunomodulatory properties, depending on their structure. Also provided are compns. comprising these SPAs, and methods of using these SPAs and compns. to either prevent or treat inflammatory pathologies, or diseases or conditions susceptible to treatment with inflammatory immunomodulators, by using appropriate SPAs.

ST synthetic polysaccharide antigen antiinflammatory immunomodulator



- antiviral anticancer vaccine adjuvant
- IT Staphylococcus aureus  
(MtgA; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Receptors  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(TLR (Toll-like receptor); synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Receptors  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(TLR-2 (Toll-like receptor-2); synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Immunostimulants  
(adjuvants; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Antibodies and Immunoglobulins  
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(anti-CD3; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Polymers, biological studies  
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(block; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Drug delivery systems  
(carriers; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Polymers, biological studies  
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(co-, random or alternating; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Allergy  
(delayed hypersensitivity, suppression; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Reagents  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(dispensing; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Tumor necrosis factors  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(induction; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)

- vaccine adjuvant)
- IT Peptides, biological studies
  - RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
  - (pentapeptides, polysaccharide conjugates; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Dipeptides
  - Tripeptides
  - RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
  - (polysaccharide conjugates; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Lymphocyte
  - T cell (lymphocyte)
    - (proliferation, inhibition; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT T cell (lymphocyte)
  - (regulatory; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Animal
  - Anti-inflammatory agents
  - Dendritic cell
  - Human
  - Immunomodulators
  - Inflammation
  - Mammalia
  - Vaccines
    - (synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT CD3 (antigen)
  - RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
  - (synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Polymers, biological studies
  - Polysaccharides, biological studies
  - RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
  - (synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Hydrocarbons, biological studies
  - Lipids, biological studies
  - RL: BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
  - (synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Antigens
  - Polyoxyalkylenes, biological studies
  - RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
  - (synthetic polysaccharide antigens with antiinflammatory or

- immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Peptides, biological studies  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(tetrapeptides, polysaccharide conjugates; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Antitumor agents  
Antiviral agents  
(therapy; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT Hydrocarbons, biological studies  
RL: BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
(unsatd.; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT 9033-07-2, Transglycosylase  
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(MgtA; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT 56-81-5, Glycerol, biological studies 57-50-1, Sucrose, biological studies 25322-68-3, Polyethylene glycol  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(dispensing agent; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT **850164-33-9P** 850164-35-1P 850164-40-8P  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(repeating unit; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT 339578-22-2, Lipid II  
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)  
(synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)
- IT **599173-88-3** 850180-80-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Chris, B; WO 02085929 A 2002 HCAPLUS
- (2) Heijenoort van, Y; JOURNAL OF BACTERIOLOGY 1992, V174(11), P3549
- (3) Inamura, S; TETRAHEDRON LETTERS 2001, V42(43), P7613 HCAPLUS
- (4) Jezek, J; COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS 1990, V55, P1326 HCAPLUS
- (5) Lefrancier, P; US 4186194 A 1980 HCAPLUS
- (6) Lilly Co Eli; WO 0179242 A 2001 HCAPLUS
- (7) Prahlad, D; WO 9960155 A 1999 HCAPLUS

(8) Thomas, B; WO 03075953 A 2003 HCAPLUS

IT **850164-33-9P**

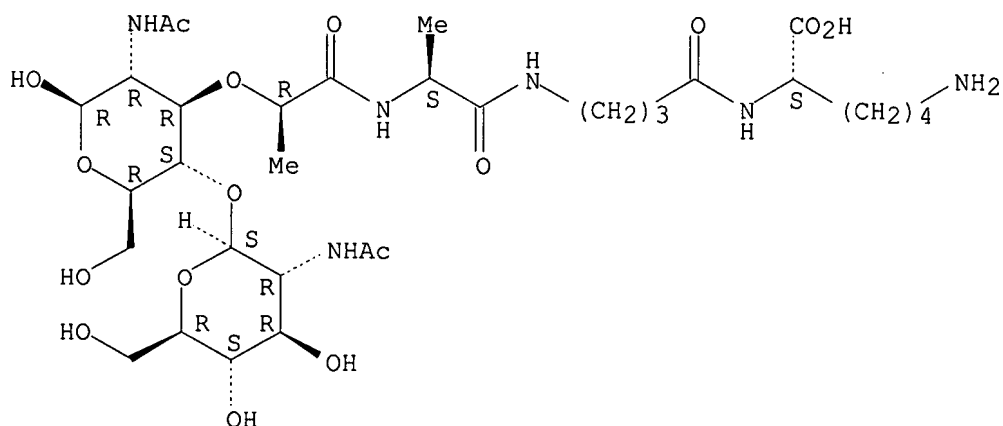
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(repeating unit; synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)

RN 850164-33-9 HCAPLUS

CN L-Lysine, N-[N-acetyl-4-O-[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-β-muramoyl]-L-alanyl-4-aminobutanoyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **599173-88-3**

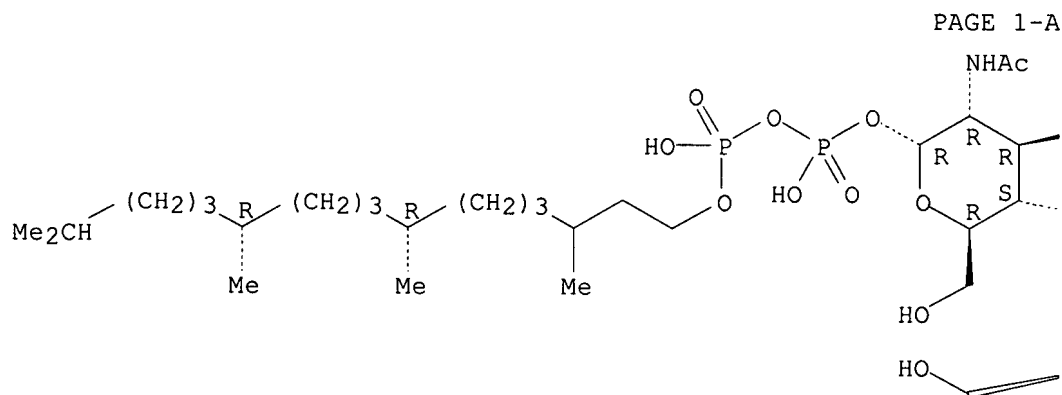
RL: RCT (Reactant); RACT (Reactant or reagent)

(synthetic polysaccharide antigens with antiinflammatory or immunomodulatory activities for antiviral and anticancer therapy or as vaccine adjuvant)

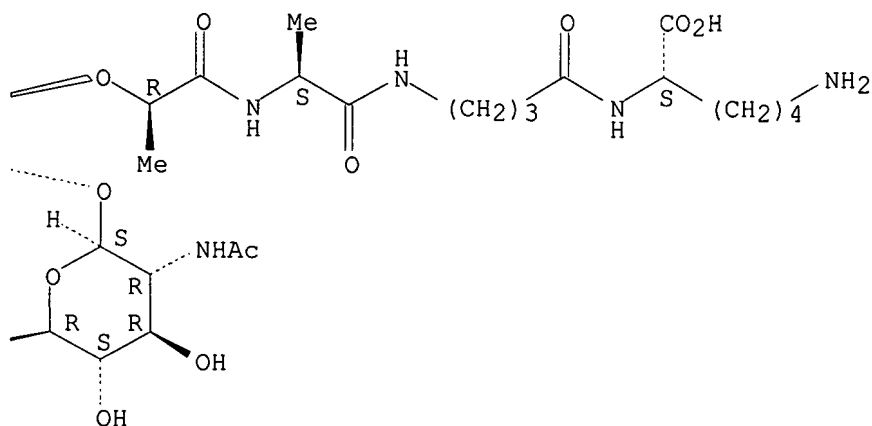
RN 599173-88-3 HCAPLUS

CN L-Lysine, N-[N-acetyl-4-O-[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-1-O-[(11R,15R)-1,3-dihydroxy-7,11,15,19-tetramethyl-1,3-dioxido-2,4-dioxo-1,3-diphosphaeicos-1-yl]-α-muramoyl]-L-alanyl-4-aminobutanoyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-B



L22 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:878299 HCAPLUS  
 DN 141:360675  
 ED Entered STN: 22 Oct 2004  
 TI Zwitterionic immunomodulators for the treatment of asthma and allergy  
 IN Tzianabos, Arthur O.; Kasper, Dennis L.  
 PA The Brigham and Women's Hospital, Inc., USA  
 SO PCT Int. Appl., 79 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K0039-02  
 CC 1-7 (Pharmacology)  
 Section cross-reference(s): 15

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004089407	A2	20041021	WO 2004-US9838	20040331
	WO 2004089407	A3	20050120		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	CA 2520865	AA	20041021	CA 2004-2520865	20040331
	US 2004219160	A1	20041104	US 2004-814620	20040331
PRAI	US 2003-459056P	P	20030331		
	WO 2004-US9838	W	20040331		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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WO 2004089407 ICM A61K0039-02  
 IPCI A61K0039-02 [ICM,7]  
 IPCR A61K0031-715 [I,A]; A61K0031-715 [I,C]; A61K0035-66  
 [I,C]; A61K0035-74 [I,A]; A61K0038-16 [I,A];  
 A61K0038-16 [I,C]; A61K0045-00 [I,C]; A61K0045-06 [I,A]  
 CA 2520865 ECLA A61K031/715; A61K031/715+M; A61K035/74+M; A61K045/06  
 IPCI A61K0031-715 [ICM,7]; A61K0038-00 [ICS,7]; A61P0037-00  
 [ICS,7]; A61K0035-74 [ICS,7]  
 ECLA A61K031/715; A61K031/715+M; A61K035/74+M; A61K038/16B;  
 A61K045/06  
 US 2004219160 IPCI C12Q0001-68 [ICM,7]; A61K0039-00 [ICS,7]; A61K0039-38  
 [ICS,7]  
 IPCR A61K0031-715 [I,A]; A61K0031-715 [I,C]; A61K0038-16  
 [I,A]; A61K0038-16 [I,C]  
 NCL 424/184.100  
 ECLA A61K031/715

AB Methods and products for treating and protecting against asthma and  
 allergic conditions are provided. The methods and products are related to  
 certain naturally occurring and synthetic zwitterionic polymers which are  
 found to induce certain T regulatory (Treg) cells and to exert  
 immunosuppressive effects in vitro and in vivo. Zwitterionic  
 polysaccharide CP1 treatment reduced ovalbumin (OVA)-specific IgE levels  
 in mice with airway hyperreactivity. OVA-sensitized, OVA-challenged mice  
 treated with CP1 had significantly reduced OVA-specific serum IgE compared  
 with OVA-sensitized, OVA-challenged mice treated with saline (p=0.0001 by  
 Fisher's Exact test).

ST zwitterionic immunomodulator treatment asthma allergy; T regulatory cell  
 induction zwitterionic polymer immunosuppression; polysaccharide CP1  
 zwitterionic antiasthmatic

IT Proteins  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 BIOL (Biological study); PREP (Preparation)  
 (ICOS (inducible co-stimulator), induction on CD4-pos. cell by  
 treatment with zwitterionic polysaccharide; zwitterionic  
 immunomodulators for treatment of asthma and allergy)

IT CD4 (antigen)  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (ICOS induction on zwitterionic polysaccharide-treated cells pos. for;  
 zwitterionic immunomodulators for treatment of asthma and allergy)

IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (IgE, anti-IgE, further administration of anti-allergy or anti-asthma  
 medicine containing; zwitterionic immunomodulators for treatment of asthma  
 and allergy)

IT Cell proliferation  
 (T cell, T regulatory cell, induction of; zwitterionic immunomodulators  
 for treatment of asthma and allergy)

IT Structure-activity relationship  
 (T-cell-activating, of (K-D) peptides; zwitterionic immunomodulators  
 for treatment of asthma and allergy)

IT T cell (lymphocyte)  
 (Treg (T regulatory), immunosuppressive, induction of; zwitterionic  
 immunomodulators for treatment of asthma and allergy)

IT Antigens  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);  
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Vi, de-N-acetylated, of Salmonella typhi; zwitterionic  
 immunomodulators for treatment of asthma and allergy)

IT Polysaccharides, biological studies  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);

- THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(acidic, PSA1 or PSA2; zwitterionic immunomodulators for treatment of  
asthma and allergy)
- IT Surgery  
(adhesion, suppression of postoperative, by Streptococcus pneumoniae  
CP1 polysaccharide; zwitterionic immunomodulators for treatment of  
asthma and allergy)
- IT Drug delivery systems  
(aerosols, inhalants; zwitterionic immunomodulators for treatment of  
asthma and allergy)
- IT Drug delivery systems  
(aerosols, powders; zwitterionic immunomodulators for treatment of  
asthma and allergy)
- IT Drug delivery systems  
(aerosols; zwitterionic immunomodulators for treatment of asthma and  
allergy)
- IT Allergens  
RL: BSU (Biological study, unclassified); BUU (Biological use,  
unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(allergy or asthma treatment with zwitterionic polysaccharide and;  
zwitterionic immunomodulators for treatment of asthma and allergy)
- IT Immunity  
(antigen-specific, inhibition of; zwitterionic immunomodulators for  
treatment of asthma and allergy)
- IT Polysaccharides, biological studies  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);  
THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(capsular, CP1, of Streptococcus pneumoniae; zwitterionic  
immunomodulators for treatment of asthma and allergy)
- IT Polysaccharides, biological studies  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);  
PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(capsular, PSA, of Bacteroides fragilis, charged motif of; zwitterionic  
immunomodulators for treatment of asthma and allergy)
- IT Polysaccharides, biological studies  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);  
PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(capsular, PSB, of Bacteroides fragilis; zwitterionic immunomodulators  
for treatment of asthma and allergy)
- IT Immunity  
(cell-mediated; zwitterionic immunomodulators for treatment of asthma  
and allergy)
- IT Antigens  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);  
THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugates, with zwitterionic polysaccharide A; zwitterionic  
immunomodulators for treatment of asthma and allergy)
- IT Polysaccharides, biological studies  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);  
THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugates, zwitterionic, with antigen; zwitterionic immunomodulators  
for treatment of asthma and allergy)
- IT Antihistamines  
(further administration of anti-allergy or anti-asthma medicine containing;  
zwitterionic immunomodulators for treatment of asthma and allergy)
- IT Glucocorticoids  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);

THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (further administration of anti-allergy or anti-asthma medicine containing;  
 zwitterionic immunomodulators for treatment of asthma and allergy)

IT Cholinergic antagonists  
 (further administration of anti-asthma medicine containing; zwitterionic  
 immunomodulators for treatment of asthma and allergy)

IT Antigens  
 Interleukin 15  
 Interleukin 2  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (in induction of proliferation of T regulatory cells; zwitterionic  
 immunomodulators for treatment of asthma and allergy)

IT Animal tissue culture  
 (in preparation and expansion of T regulatory cells; zwitterionic  
 immunomodulators for treatment of asthma and allergy)

IT Interleukin 10  
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);  
 BIOL (Biological study); PREP (Preparation)  
 (induction by treating T regulatory cells with zwitterionic  
 polysaccharide; zwitterionic immunomodulators for treatment of asthma  
 and allergy)

IT T cell (lymphocyte)  
 (proliferation, T regulatory cell, induction of; zwitterionic  
 immunomodulators for treatment of asthma and allergy)

IT Drug delivery systems  
 (sprays; zwitterionic immunomodulators for treatment of asthma and  
 allergy)

IT Adhesion, biological  
 (suppression of postoperative surgical, by Streptococcus pneumoniae CP1  
 polysaccharide; zwitterionic immunomodulators for treatment of asthma  
 and allergy)

IT Antibodies and Immunoglobulins  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);  
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (to IgE, further administration of anti-allergy or anti-asthma medicine  
 containing; zwitterionic immunomodulators for treatment of asthma and  
 allergy)

IT Drug delivery systems  
 (topical; zwitterionic immunomodulators for treatment of asthma and  
 allergy)

IT CD4-positive T cell  
 (treatment with antigen presenting cells, zwitterionic polysaccharide  
 and cytokines for expansion of T regulatory cells; zwitterionic  
 immunomodulators for treatment of asthma and allergy)

IT Streptococcus pneumoniae  
 (zwitterionic capsular polysaccharide CP1 of; zwitterionic  
 immunomodulators for treatment of asthma and allergy)

IT Eubacteria  
 (zwitterionic capsular polysaccharide of; zwitterionic immunomodulators  
 for treatment of asthma and allergy)

IT Allergy  
 Allergy inhibitors  
 Antiasthmatics  
 Asthma  
 Combination chemotherapy  
 Human  
 Immunomodulators  
 Immunosuppressants  
 Prophylaxis



Zwitterions  
 (zwitterionic immunomodulators for treatment of asthma and allergy)

IT Interleukin 13  
 RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)  
 (zwitterionic polysaccharide CPl treatment reduction of, in asthmatic animal model; zwitterionic immunomodulators for treatment of asthma and allergy)

IT Salmonella typhi  
 (zwitterionic polysaccharide of; zwitterionic immunomodulators for treatment of asthma and allergy)

IT Bacteroides fragilis  
 (zwitterionic polysaccharides of; zwitterionic immunomodulators for treatment of asthma and allergy)

IT Protein motifs  
 (zwitterionic; zwitterionic immunomodulators for treatment of asthma and allergy)

IT Peptides, biological studies  
 Polymers, biological studies  
 Polysaccharides, biological studies  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (zwitterionic; zwitterionic immunomodulators for treatment of asthma and allergy)

IT Adrenoceptor agonists  
 ( $\beta$ -, further administration of anti-asthma medicine containing; zwitterionic immunomodulators for treatment of asthma and allergy)

IT 16110-51-3, Cromolyn 28109-92-4D, Methylxanthine, compds. 69049-73-6, Nedocromil  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (further administration of anti-asthma medicine containing; zwitterionic immunomodulators for treatment of asthma and allergy)

IT 385345-10-8, GenBank AJ277832  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (zwitterionic immunomodulators for treatment of asthma and allergy)

IT 33218-32-5P  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (zwitterionic immunomodulators for treatment of asthma and allergy)

IT 9000-69-5D, Pectin, aminated **777941-04-5**  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (zwitterionic immunomodulators for treatment of asthma and allergy)

IT **777941-04-5**  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (zwitterionic immunomodulators for treatment of asthma and allergy)

RN 777941-04-5 HCAPLUS

CN L-Lysine, N-[N-acetyl-4-O-[2-(acetilamino)-2-deoxy- $\beta$ -D-glucopyranosyl]-1-O-[(11R,15R)-1,3-dihydroxy-7,11,15,19-tetramethyl-1,3-dioxido-2,4-dioxo-1,3-diphosphaeicos-1-yl]- $\alpha$ -muramoyl]-L-alanyl-4-aminobutanoyl-, homopolymer (9CI) (CA INDEX NAME)

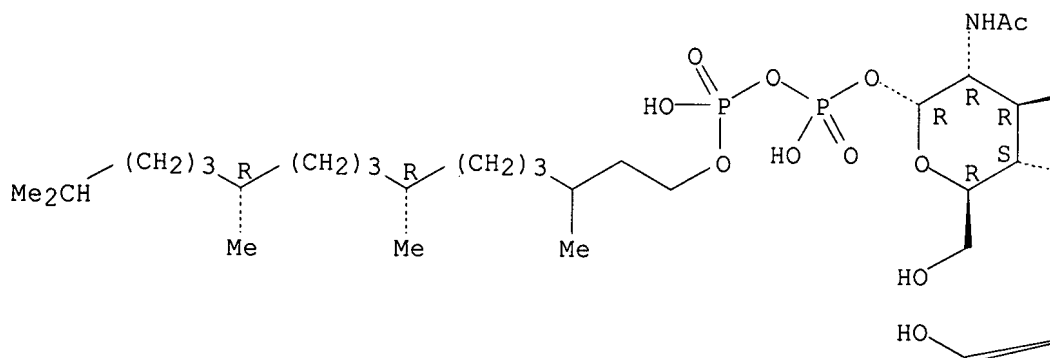
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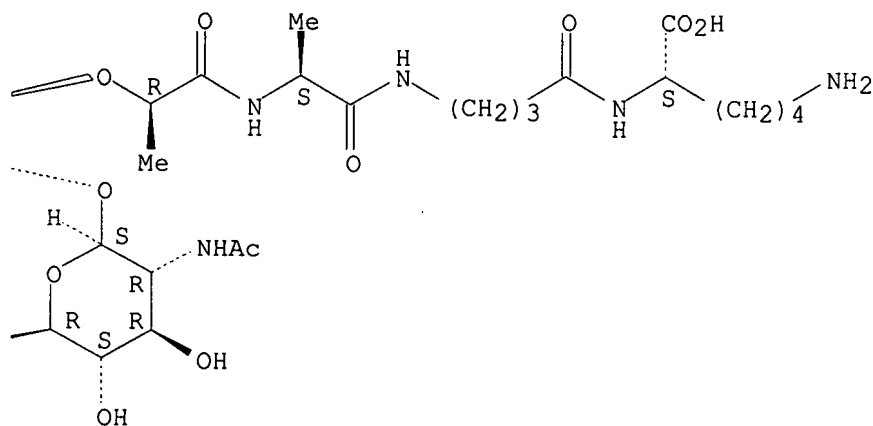
CMF C52 H98 N6 O22 P2

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L22 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:737602 HCAPLUS  
 DN 139:244708  
 ED Entered STN: 19 Sep 2003  
 TI Immunomodulatory polymeric antigens for treating inflammatory diseases  
 IN Taylor, Kathleen Ann; Blaszcak, Larry Chris;  
 Blackburn, Neil Thomas  
 PA Eli Lilly and Company, USA  
 SO PCT Int. Appl., 96 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K0039-02  
 ICS A61K0039-00; A61K0031-726; C12N0005-08; A61K0035-12; C08B0037-00;  
 A61P0037-00  
 CC 15-2 (Immunochemistry)  
 Section cross-reference(s): 63  
 FAN.CNT 1

*Applicant  
+ additional Invention*

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2003075953 A2 20030918 WO 2003-US5575 20030307 <--  
 WO 2003075953 A3 20040401  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,  
 PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,  
 TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
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 US 2005119164 A1 20050602 US 2003-506312 20030307 <--  
 PRAI US 2002-363065P P 20020308 <--  
 US 2002-365211P P 20020315 <--  
 WO 2003-US5575 W 20030307 <--

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003075953	ICM	A61K0039-02
	ICS	A61K0039-00; A61K0031-726; C12N0005-08; A61K0035-12; C08B0037-00; A61P0037-00
	IPCI	A61K0039-02 [ICM,7]; A61K0039-00 [ICS,7]; A61K0031-726 [ICS,7]; C12N0005-08 [ICS,7]; A61K0035-12 [ICS,7]; C08B0037-00 [ICS,7]; A61P0037-00 [ICS,7]
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	IPCR	A61K0031-726 [I,A]; A61K0031-726 [I,C]; A61K0038-14 [I,A]; A61K0038-14 [I,C]; C12N0005-06 [I,A]; C12N0005-06 [I,C] <--
EP 1494687	IPCI	A61K0031-726 [ICM,7]; A61K0039-00 [ICS,7]; A61K0031-26 [ICS,7]; C12N0005-08 [ICS,7]; A61K0035-12 [ICS,7]; C08B0037-00 [ICS,7]; A61P0037-00 [ICS,7]
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US 2005119164	IPCI	A61K0038-16 [ICM,7]; A61K0031-739 [ICS,7] <--
	NCL	514/008.000 <--
AB	Provided are natural and synthetic immunomodulatory polymeric antigens (SPAs); compns. containing SPAs, Streptococcus pneumoniae capsule-derived CP1 and mixts.; as well as methods of using these natural and synthetic SPAs and compns. to prevent or treat inflammatory pathologies. A novel synthetic peptidoglycan was prepared for the purpose of the invention.	
ST	immunomodulatory polymeric antigen Streptococcus pneumoniae capsule CP1 inflammation	
IT	T cell (lymphocyte) (CD3-pos.; immunomodulatory polymeric antigens for treating inflammatory diseases)	
IT	Histocompatibility antigens RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)	

(MHC (major histocompatibility complex), class II; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Capsule (microbial)  
(Streptococcus; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Disease, animal  
(Sweet's syndrome; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Cell activation  
(T cell; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Abscess  
(abdominal; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Abdomen, disease  
(abscess; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT T cell (lymphocyte)  
(activation; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Inflammation  
Pancreas, disease  
(acute pancreatitis, inflammatory; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Respiratory distress syndrome  
(acute; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Appendix  
Intestine, disease  
(appendicitis; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Antibiotics  
(candins; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Streptococcus pneumoniae  
(capsule; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Drug delivery systems  
(carriers; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Transplant and Transplantation  
(cell, tissue and organ; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Artery  
(cerebral, atherogenesis; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Gallbladder, disease  
Inflammation  
(cholecystitis; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Inflammation  
Intestine, disease  
(colitis; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Artery, disease  
(coronary; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Allergy  
(delayed hypersensitivity; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Inflammation  
Intestine, disease  
(diverticulitis; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Lymphocyte  
(effector cell, T; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Liver, disease  
(fibrosis; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Viscera  
(fibrotic disorders; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Fibrosis  
(hepatic; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Skin, disease  
(hypersensitivity; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Abscess  
Adhesion, biological  
Animal  
Antigen-presenting cell  
Asthma  
Atherosclerosis  
B cell (lymphocyte)  
Behcet's syndrome  
Biomarkers  
Buffers  
Burn  
Dendritic cell  
Diabetes mellitus  
Eczema  
Eubacteria  
Granulomatous disease  
Human  
Immunostimulants  
Inflammation  
Macrophage  
Mammalia  
Monocyte  
Multiple sclerosis  
Mus  
Myasthenia gravis  
Psoriasis  
Rattus  
Rheumatoid arthritis  
Sepsis  
T cell (lymphocyte)  
Wound healing  
(immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Antigens  
Polysaccharides, biological studies  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(immunomodulatory polymeric antigens for treating inflammatory diseases)

IT CD80 (antigen)

CD86 (antigen)  
 Cytokines  
 Interleukin 10  
 Interleukin 12  
 Interleukin 17  
 Interleukin 19  
 Interleukin 2  
 Interleukin 4  
 Interleukin 6  
 Peptidoglycans  
 Salts, biological studies  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (immunomodulatory polymeric antigens for treating inflammatory  
 diseases)  
 IT Intestine, disease  
 (inflammatory; immunomodulatory polymeric antigens for treating  
 inflammatory diseases)  
 IT Drug delivery systems  
 (injections, i.p.; immunomodulatory polymeric antigens for treating  
 inflammatory diseases)  
 IT Drug delivery systems  
 (injections, i.v.; immunomodulatory polymeric antigens for treating  
 inflammatory diseases)  
 IT Drug delivery systems  
 (intercardiac route; immunomodulatory polymeric antigens for treating  
 inflammatory diseases)  
 IT Inflammation  
 Pancreas, disease  
 (pancreatitis, endoscopic retrograde cholangiopancreatog.-induced;  
 immunomodulatory polymeric antigens for treating inflammatory diseases)  
 IT Mononuclear cell (leukocyte)  
 (peripheral blood; immunomodulatory polymeric antigens for treating  
 inflammatory diseases)  
 IT Artery, disease  
 (peripheral, atherogenesis; immunomodulatory polymeric antigens for  
 treating inflammatory diseases)  
 IT Blood  
 (peripheral; immunomodulatory polymeric antigens for treating  
 inflammatory diseases)  
 IT Surgery  
 (post-; adhesion; immunomodulatory polymeric antigens for treating  
 inflammatory diseases)  
 IT Skin, disease  
 (pyoderma, gangrenosum; immunomodulatory polymeric antigens for  
 treating inflammatory diseases)  
 IT Endoscopes  
 (retrograde cholangiopancreatog.; pancreatitis induced by;  
 immunomodulatory polymeric antigens for treating inflammatory diseases)  
 IT Skin, disease  
 (scar; immunomodulatory polymeric antigens for treating inflammatory  
 diseases)  
 IT Biliary tract, disease  
 Inflammation  
 (sclerosing cholangitis; immunomodulatory polymeric antigens for  
 treating inflammatory diseases)  
 IT Antigens  
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (surface; immunomodulatory polymeric antigens for treating inflammatory

diseases)

IT Lupus erythematosus  
(systemic; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Animal cell  
Organ, animal  
(transplant; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Fibrosis  
(visceral; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Interferons  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
( $\alpha$ ; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT Interferons  
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
( $\gamma$ ; immunomodulatory polymeric antigens for treating inflammatory diseases)

IT 150-86-7, Phytol 16965-06-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(immunomodulatory polymeric antigens for treating inflammatory diseases)

IT 189302-44-1P, Phytanol 367276-21-9P 367276-27-5P 367276-28-6P  
599173-78-1P 599173-79-2P 599173-80-5P 599173-81-6P 599173-82-7P  
599173-84-9P **599173-85-0P 599173-87-2P**  
**599173-88-3P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(immunomodulatory polymeric antigens for treating inflammatory diseases)

IT 83869-56-1, GM-CSF  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(immunomodulatory polymeric antigens for treating inflammatory diseases)

IT **599173-89-4P**  
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(repeating unit; immunomodulatory polymeric antigens for treating inflammatory diseases)

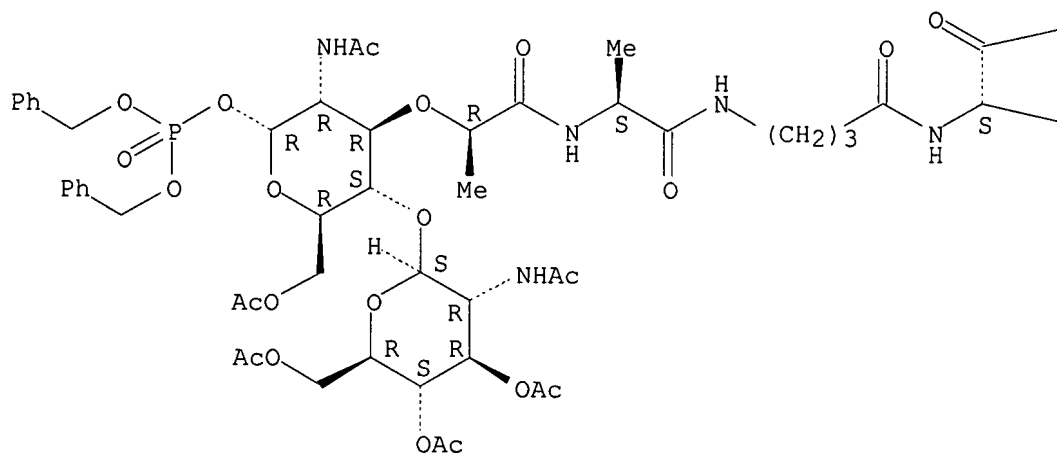
IT **599173-85-0P 599173-87-2P 599173-88-3P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(immunomodulatory polymeric antigens for treating inflammatory diseases)

RN 599173-85-0 HCAPLUS

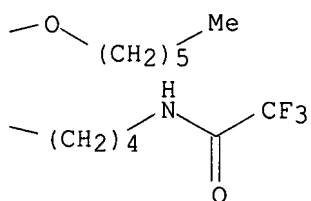
CN L-Lysine, N-[N-acetyl-6-O-acetyl-1-O-[bis(phenylmethoxy)phosphinyl]-4-O-[3,4,6-tri-O-acetyl-2-(acetylamino)-2-deoxy- $\beta$ -D-glucopyranosyl]- $\alpha$ -muramoyl]-L-alanyl-4-aminobutanoyl-N6-(trifluoroacetyl)-, hexyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



RN 599173-87-2 HCAPLUS  
 CN L-Lysine, N-[N-acetyl-6-O-acetyl-1-O-phosphono-4-O-[3,4,6-tri-O-acetyl-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-α-muramoyl]-L-alanyl-4-aminobutanoyl-N6-(trifluoroacetyl)-, 3-hexyl ester, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)

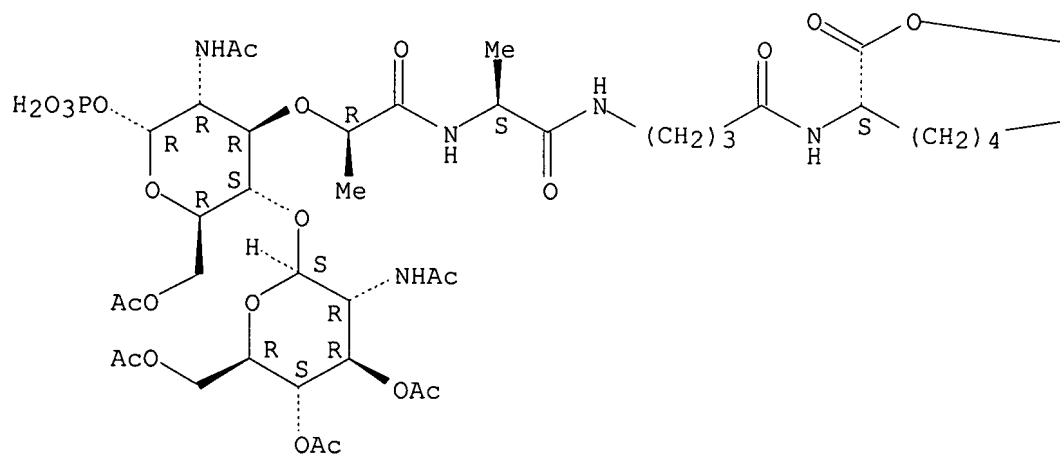
CM 1

CRN 599173-86-1  
 CMF C48 H76 F3 N6 O24 P

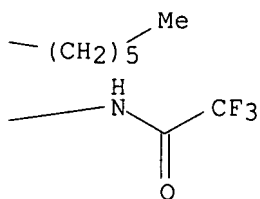
Absolute stereochemistry.



PAGE 1-A



PAGE 1-B



CM 2

CRN 110-86-1

CMF C5 H5 N

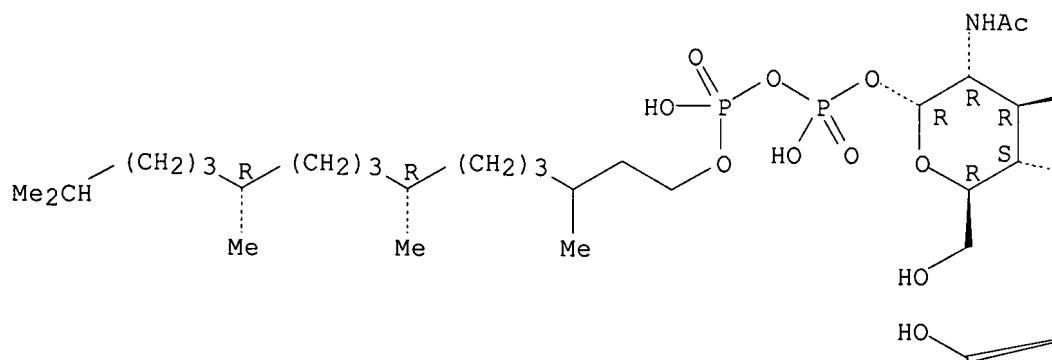


RN 599173-88-3 HCAPLUS

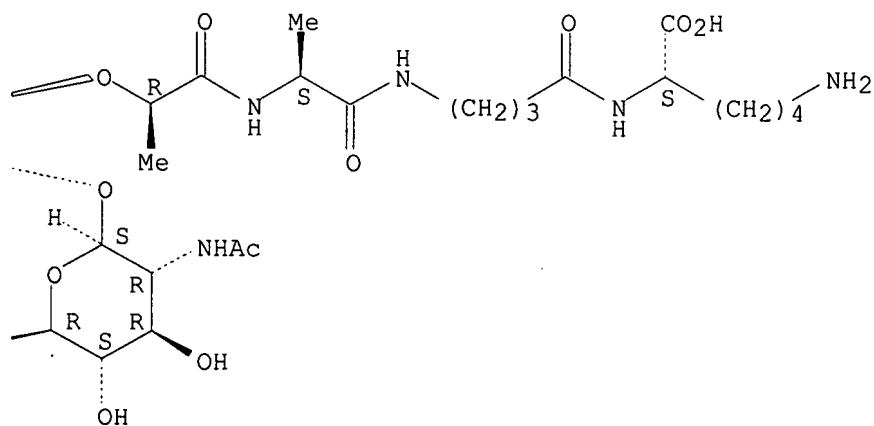
CN L-Lysine, N-[N-acetyl-4-O-[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-1-O-[(11R,15R)-1,3-dihydroxy-7,11,15,19-tetramethyl-1,3-dioxido-2,4-dioxo-1,3-diphosphaeicos-1-yl]-α-muramoyl]-L-alanyl-4-aminobutanoyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT 599173-89-4P

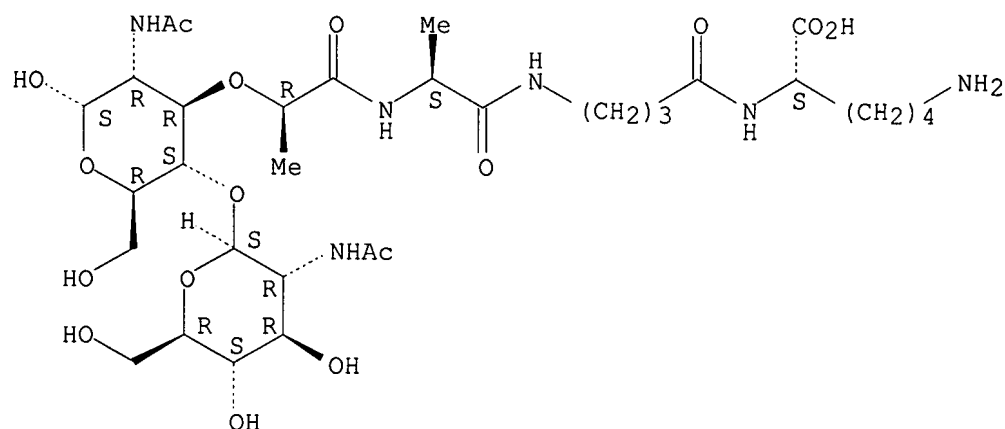
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);  
 USES (Uses)

(repeating unit; immunomodulatory polymeric antigens for treating  
 inflammatory diseases)

RN 599173-89-4 HCAPLUS

CN L-Lysine, N-[N-acetyl-4-O-[2-(acetylamino)-2-deoxy-β-D-  
 glucopyranosyl]-α-muramoyl]-L-alanyl-4-aminobutanoyl- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



=> d his

(FILE 'HOME' ENTERED AT 13:05:51 ON 27 MAR 2006)  
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 13:06:16 ON 27 MAR 2006

L1 1 S US20050119164/PN OR (US2004-506312# OR WO2003-US05575 OR US20  
E TAYLOR K/AU  
L2 224 S E3,E4  
E TAYLOR KATH/AU  
L3 14 S E10-E12  
L4 2 S E33  
E BLASZCZAK/AU  
L5 61 S E19-E22  
E BLACKBURN N/AU  
L6 14 S E3,E10,E12,E13  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 13:08:34 ON 27 MAR 2006

L7 17 S E1-E17  
L8 7 S L7 AND OC5/ES  
L9 4 S L8 NOT S/ELS  
L10 STR  
L11 7 S L10  
L12 STR L10  
L13 1 S L12  
L14 6 S L11 NOT L13  
L15 7 S L12 FUL  
SAV L15 GANGLE506/A  
L16 3 S L15 NOT L9  
L17 7 S L9,L15

FILE 'HCAOLD' ENTERED AT 13:22:30 ON 27 MAR 2006

L18 0 S L17

FILE 'HCAPLUS' ENTERED AT 13:22:33 ON 27 MAR 2006

L19 3 S L17  
L20 2 S L19 AND L1-L6  
L21 2 S L19 AND (ELI? OR LILLY?)/PA,CS  
L22 3 S L19-L21

L23 FILE 'USPATFULL, USPAT2' ENTERED AT 13:23:08 ON 27 MAR 2006  
2 S L17

FILE 'REGISTRY' ENTERED AT 13:23:24 ON 27 MAR 2006

FILE 'USPATFULL, USPAT2' ENTERED AT 13:23:41 ON 27 MAR 2006

FILE 'HCAPLUS' ENTERED AT 13:24:28 ON 27 MAR 2006

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